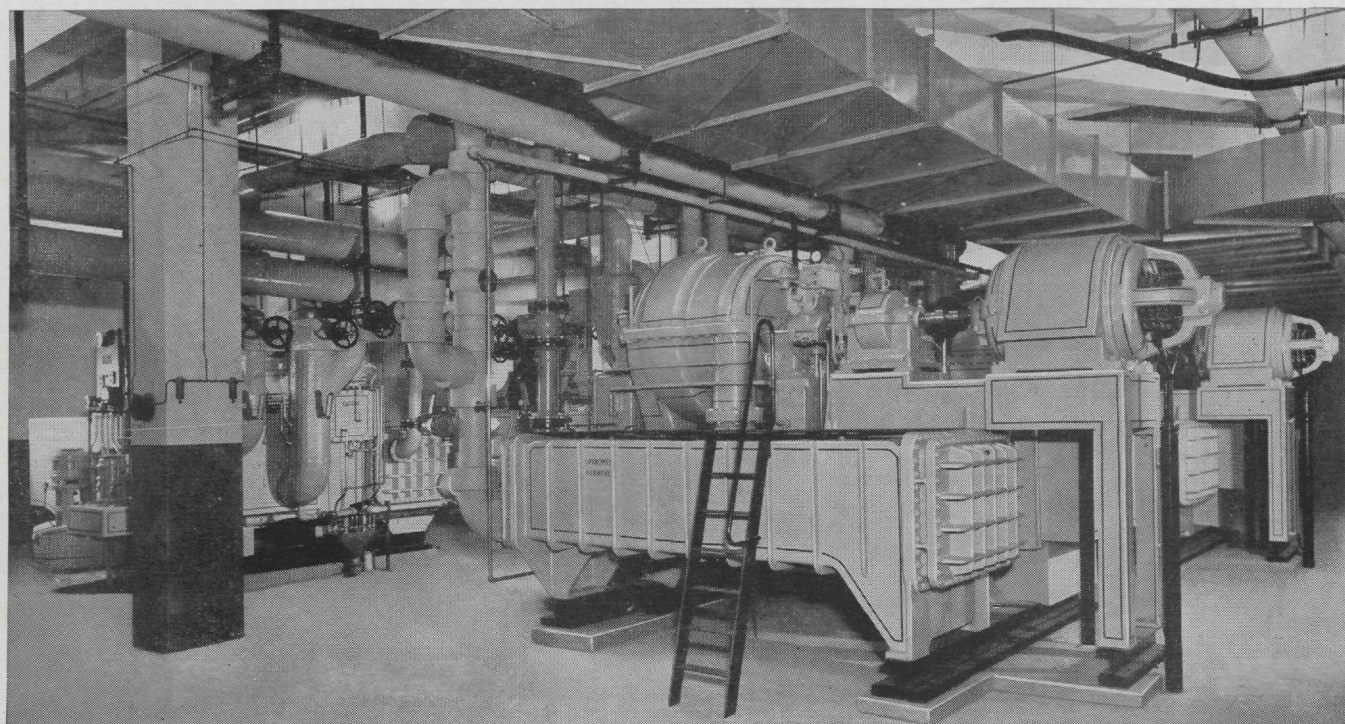


The Knowledge Bank at The Ohio State University

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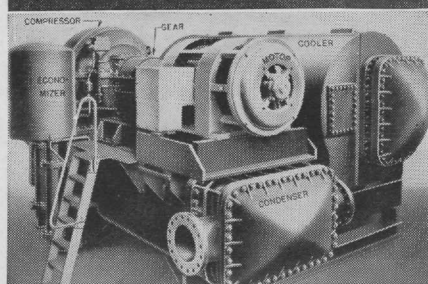


CARRIER CENTRIFUGAL REFRIGERATION— the development that revolutionized an industry!

IT'S a simple matter to provide refrigeration for air conditioning small stores or buildings. A good conventional compressor will do the work in a satisfactory manner, and at reasonable cost. But it's a different matter entirely to supply the thousands of tons of refrigeration required for cooling skyscrapers—or for industrial processing. Space is costly. Power costs must be controlled. Paralleling the trend toward rotating, high speed, smooth-action machinery, Carrier engineers developed Carrier Centrifugal Refrigeration—a development that literally revolutionized the industry!

Think of a compressor capable of supplying cooling equivalent to melting 1000 tons of ice each day—yet so compact that it can be installed in a fraction of the space required for conventional compressors. So economical that power costs are reduced as much as 25%—yet so simple that no skilled attendants are

Above: Carrier Centrifugal Refrigeration machine providing refrigeration for air conditioning of skyscraper.
Below: Diagram of construction.



required. So efficient, the first machine constructed is operating today, as effectively as when installed, 15 years ago.

Centrifugal Refrigeration . . . Evaporative Condensing . . . safe refrigerants . . . in fact every Carrier contribution to the comfort and efficiency of the world has been brought about through engineering. And the opportunities for young engineers to gain recognition at Carrier are greater now than ever before. At Carrier, young men hold responsible positions—their capacity gauged, not by age, but by ability. Whether that ability is fostered best by laboratory research or field work in the far corners of the world, Carrier enables engineers to progress.

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During 1937, Carrier trained 300 recent graduates from leading engineering schools in every section of the country. Carrier needs more men. If you had a good school record, and are interested in the world's most fascinating and fastest-growing industry, write us.

Carrier
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A N O R G A N I Z A T I O N O F E N G I N E E R S

G-E Campus News

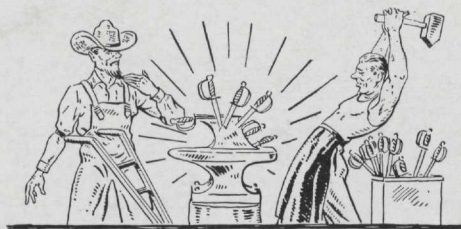


"SOUPED" ENGINES FOR SIX-MILE HEIGHTS

AS THE bellows is to the forge, so is the supercharger to the airplane engine. Because of the rarefied atmosphere at high elevations, airplane engines require superchargers which operate like fan blowers, maintaining air pressure in the engines and permitting the motor to operate at normal efficiency.

Today, twelve-hour flights from coast to coast at an average height of six miles are the objective of transport airlines. Experiments in this field have been successfully conducted by Transcontinental and Western Air, Inc., and the U.S. Army Air Corps with very encouraging results, using G-E turbine-driven superchargers.

Military, transport, racing, and transoceanic planes are equipped with G-E superchargers which increase motor efficiency, speed, and flying distance. The superchargers were developed by Dr. S. A. Moss, of General Electric and are built in the River Works in Lynn, Mass. Student engineers on Test at Lynn have an opportunity to inspect and test these devices as a part of their training course.



BEATING SWORDS INTO PLOWSHARES

WELL, not exactly swords into plowshares, but rather discarded rails, superheaters, and boiler tubes into steel for the overhead system of an electrified railroad line. In this manner the old steam railroad of the Witwatersrand Gold Mining Area was replaced by a completely electrified line.

Because of the rise in gold prices during the last

few years, an increased suburban passenger traffic in that section of South Africa necessitated an enlargement of the railroad.

Mercury-arc rectifiers made by the British Thomson-Houston Company, an affiliate of General Electric, supply the power for the "Reef Scheme," as it is called, while 115 four-motor, multiple-unit car equipments were furnished by G.E. through the International General Electric Company.

The engineering and sales work on this project was done by several former G-E Test men. Many such opportunities are open to graduates of college engineering schools who have successfully completed the G-E Test Course.



AMERICA'S OUTSTANDING YOUNG ELECTRICAL ENGINEER

DR. CHAUNCEY GUY SUITS, research physicist of the General Electric Research Laboratory, in Schenectady, has been named by Eta Kappa Nu, honorary electrical engineering fraternity, as the outstanding young electrical engineer for 1937.

Born in Oshkosh, Wisconsin in 1905, Dr. Suits graduated from the University of Wisconsin in 1927 and from the Technische Hochschule in Zurich, Switzerland (Sc.D. '29). An ardent skier, he spends most of his spare time on the snowy slopes around upper New York State.

As a member of the Research Laboratory staff, his work has been on the fundamentals of electric arcs, showing how arc temperature can be measured by sound, and it was for this work that the Eta Kappa Nu award was given him. Other activities for which Dr. Suits is noted include the investigation of non-linear circuits, high-pressure arcs, and the development of automatic tuning for radio receivers.

Last year the award was given to Frank M. Starr, U. of Colorado '28, G-E Test '29, who is employed in the Central Station Engineering Department of General Electric. The Test Course, of which Starr is an alumnus, provides a practical education supplementary to the theoretical knowledge obtained in college.

GENERAL ELECTRIC

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